

(No Model.)

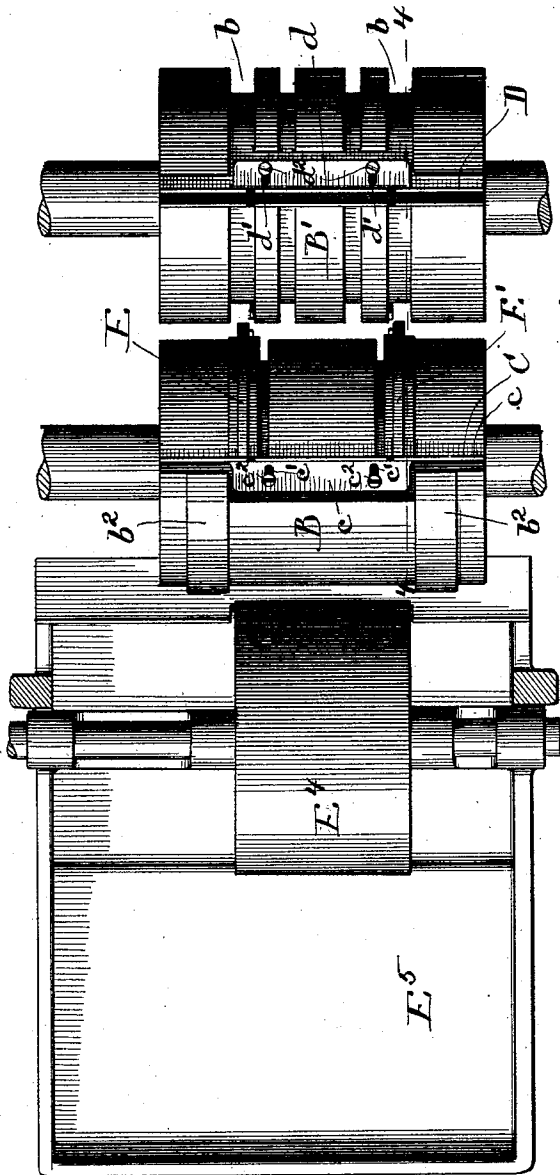
2 Sheets—Sheet 1.

A. C. GETTEN.
PAPER BAG MACHINE.

No. 482,170.

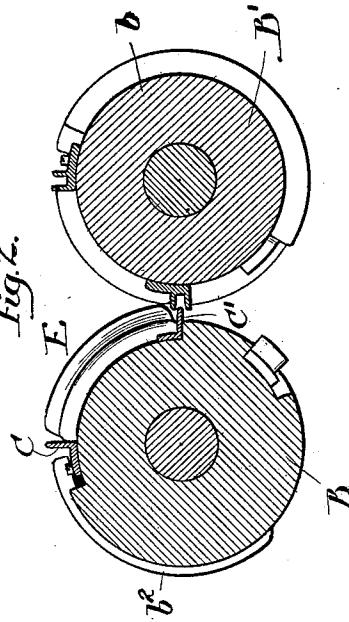
Patented Sept. 6, 1892.

Fig. 1.



Witnesses.
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Fig. 2.



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UNITED STATES PATENT OFFICE.

ALBERT C. GETTEN, OF CHICAGO, ILLINOIS.

PAPER-BAG MACHINE.

SPECIFICATION forming part of Letters Patent No. 482,170, dated September 6, 1892.

Application filed March 17, 1892. Serial No. 425,244. (No model.)

To all whom it may concern:

Be it known that I, ALBERT C. GETTEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Paper-Bag Machines, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My present invention has relation more particularly to that class of paper-bag machines designed for forming "square-bottom" bags; and its object is to simplify and improve the mechanism whereby the creasing and pasting of the bottom portion of the bag is effected.

To this end my invention consists in the novel features of construction hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claims at the end of this specification.

Figure 1 is a plan view of the pasting and creasing rolls and adjacent parts. Fig. 2 is a view in vertical transverse section through the pasting and creasing rolls. Fig. 3 is a detail plan view of the pasting and creasing rolls. Fig. 4 is a view in central transverse section through Fig. 3. Fig. 5 is a view in side elevation, showing in full lines the shape of the bag-blank as it enters the pasting and creasing rolls.

A designates a portion of the main frame of the machine. In the upper part of the main frame are journaled the pasting and creasing rolls B and B', these rolls being geared together to insure their unison movement. The roll B may for convenience be termed the "male" roll, since this roll carries the male creaser-blades and the paste-pads, while the roll B' may be termed the "female" roll, as this roll serves to carry the female or groove creaser plates or channels and is cut away to permit the proper action of the paste-pads carried by the roll B. The creaser-blades C and C' are set within channels extending across the face of the roll B, and the base of each of these blades C and C' is furnished with an extension c, whereby it is attached to the roll. The creaser-blade C has its extension c provided with slots c' to admit the set-screws c², whereby the blade is attached to the roll, the object of this arrange-

ment being to permit the blade to be adjusted in order to vary the distance between the creases made in the bag-blank to permit different sizes of bag-blanks to be creased, as will hereinafter more fully appear.

The female or grooved creaser-plates D and D' consist each of parallel plates set at sufficient distance apart to receive the creaser-blades C C', and the base of each of these female creaser-plates is furnished with an extension d, whereby it is attached in its corresponding groove extending across the face of the roll B'. The grooved creaser plate or channel D has its base d provided with slots d' to admit the set-screws d², this arrangement permitting an adjustment of the plate D, corresponding with the adjustment of the male creaser-blade C and for like purpose.

Upon the bag-blank shown in Fig. 5 of the drawings the position in which the paste is to be applied is indicated by the stippled lines 2, 3, and 4, and in order to lay the paste upon the side flaps and one of the end flaps 51 of the bag bottom at the points indicated the male roll B is provided with two parallel paste-pads E and E', which distribute the paste upon the side flaps of the bag bottom and with the paste-pad E², which serves to distribute the paste upon the end flap of the bag bottom at the points 3 and 4, Figs. 3 and 5. The female roll B' has its periphery formed with grooves b at points opposite the paste-pads E, so that no hard backing or resistance will be offered to the opposite side of the bag-blank as the paste-pads E apply the paste thereto, and for like reason the female roll is provided with the transverse groove b' at a point corresponding in location to the paste-pad E², which serves to apply the paste to the end flap of the bag bottom. The paste-pads E and E' will be supplied with paste by a suitable paste-roller E⁴, working in a trough E⁵, these pads being higher than the blades C C', which escape contact with the roller E⁴. As the bag-blank before its delivery to the rolls B' will have been folded by suitable mechanism into the shape shown by Fig. 5 and with its sides provided with the usual "bellows" fold, and as it is desirable to avoid the compression of the bag-blank upon its outer edges and upon the lines 5 5 of the bellows fold, I form the rolls B and B' with the raised por-

tions b^2 , adapted to bear upon the bag-blank between the lines 5 5 (see Figs. 1 and 2) and the outer edges of the blank, and these raised portions follow the creaser-blade C and the grooved creaser-plate D, so as to insure the feed of the bag-blank through the rolls B B' after the blank has left the bight of the creaser-blade and plate C and D.

From the foregoing description it will be seen that if a bag-blank previously folded to the shape shown in Fig. 5 of the drawings is introduced between the rolls B B' at a time when the creaser-blades C' and grooved plate D' are in the position in which the blade C and the plate D occupy in Fig. 2 of the drawings and motion is imparted to these rolls, the creaser-blade C' will contact with the bag-blank at the point indicated by the dotted line 6 of the drawings, Fig. 5, and will force the blank into the grooved creaser-plate D', thereby creasing the blank upon such lines, and as the rolls B B' continue to revolve the bag-blank will be carried forward until the blade C forces the blank into the grooved plate D and forms a second crease upon the line 7 of the bag-blank, as seen in Fig. 5. Previous, however, to the creasing of the bag-blank upon the line 6 by the blade C' and grooved plate D' the paste-pad E² will serve to apply paste at the points 3 and 4 upon the end flap 51 of the blank, and as the blank is being drawn through the rolls B B' the paste-pads E and E' will apply the paste to the side flaps of the bag-blanks and intermediate the lines 6 and 7, upon which the blank will be creased. Hence it will be seen that by the passage of the bag-blank through the single set of combined creasing and pasting rolls B and B' the bag-blank will be at once creased upon the proper lines for subsequent folding and will have paste applied at proper points to insure the retention of the bottom flaps when folded. When bags of larger size and consequently having wider bottoms are to be formed, the adjustable creaser-blade C and the adjustable creaser-plate D will be moved backward a corresponding distance to increase the width

between the lines of creases 6 and 7 to be formed on the blank. The creaser-blades C and C' are provided with transverse slots c^{10} to prevent their contact with the doffer-fingers F.

My invention resides in the features of novelty hereinafter defined in the claims, and it is manifest that the invention can be employed, either in whole or in part, in connection with various types of paper-bag machines.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a paper-bag machine, the improved means for creasing the bag-blank, which consists of a pair of rolls, one of which rolls is provided with two creasing-blades, one of said blades being adjustable around the periphery of the roll to enable it to be shifted with respect to the other blade and the other of which rolls is provided with two grooved creasing plates or channels, one of which is adjustable around the periphery of the roll to permit it to be shifted with respect to the other, whereby the distance between the creased lines of the bag may be varied as desired, substantially as described.

2. In a paper-bag machine, the improved means for creasing and pasting the bag-blank, which consists of a pair of rolls, one of which rolls is provided with paste-pads and with two creasing-blades, one of said blades being adjustable around the periphery of the roll to enable it to be shifted with respect to the other blade and the other of which rolls is provided with two grooved creasing plates or channels, one of which is adjustable around the periphery of the roll to permit it to be shifted with respect to the other, whereby the distance between the creased lines of the bag may be varied as desired, substantially as described.

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